

**NOTES ON ORIENTAL GALERUCINAE LATREILLE, 1802
WITH DESCRIPTION OF A NEW SPECIES OF THE GENUS
PALPOXENA BALY, 1861 (COLEOPTERA: CHRYSOMELIDAE)**

Igor V. Kizub*

* Department of Experimental Therapeutics, Institute of Pharmacology and Toxicology of National Academy of Medical Sciences of Ukraine, 14 Eugene Pottier Str., 03680, Kiev, UKRAINE. E-mails: buzzmann@ukr.net; kizub@ift.org.ua

[Kizub, I. V. 2016. Notes on Oriental Galerucinae Latreille, 1802 with description of a new species of the genus *Palpoxena* Baly, 1861 (Coleoptera: Chrysomelidae). Munis Entomology & Zoology, 11 (1): 18-25]

ABSTRACT: The paper contains new faunistic information and taxonomic notes regarding several Galerucinae species from the Oriental Region, namely *Altica aenea* (Olivier, 1808), *Chaloenus apicicornis* (Jacoby, 1884A), and *Mimastra jelineki* Bezděk, 2009. Updated maps of these species distribution in the Oriental Regions are represented. Also, *Palpoxena shayakhmetovai*, a new species of chrysomelid beetle of the subfamily Galerucinae, is described from Pahang, Peninsular Malaysia.

KEY WORDS: *Altica*, *Chaloenus*, Chrysomelidae, Galerucinae, *Mimastra*, Oriental Region, *Palpoxena*.

Oriental beetles of the subfamily Galerucinae Latreille, 1802 have been studied extensively for a long time. However, the subfamily still remains to be largely unexplored. The subfamily Alticinae Newman, 1835 is closely related to the subfamily Galerucinae and recently many authors subordinated this group as a tribe Alticini Newman, 1835 within the Galerucinae subfamily (Biondi & D'Alessandro, 2012; Konstantinov et al., 2013). In the present paper, new data related to the faunistic records of several Galerucine beetles from the Oriental Region, namely *Altica aenea* (Olivier, 1808), *Chaloenus apicicornis* (Jacoby, 1884A), and *Mimastra jelineki* Bezděk, 2009 are reported, and a new species *Palpoxena shayakhmetovai* sp. nov. from Peninsular Malaysia is described.

MATERIALS AND METHODS

The insects were collected manually in the daytime. The material used for this study is deposited in the author's private collection in Kiev, Ukraine. The following keys were used for the identification of the specimens: Mohamedsaid, 1997; Medvedev, 2004; Bezděk, 2009; Bezděk & Lee, 2011; Takizawa, 2012; Reid & Beatson, 2015. Photographs were taken by Canon EOS 5D Mark III camera with Canon Macro Lens EF 100 mm 1:2.8 L IS USM and flash Nissin MF18 Macro. Author of photographs is Maksym Leshchenko (Kiev, Ukraine).

RESULTS AND DISCUSSION

Altica aenea (Olivier, 1808) (Fig. 1).

- = *australis* (Blackburn 1889);
- = *bicolora* (Jacoby 1904);
- = *cyanea* sensu Maulik 1926;
- = *coerulea* sensu Weise 1923;
- = *corrusca* sensu Bryant & Gressitt 1957;
- = *jussiaeae* Gressitt, 1955.

All synonyms are given according to Reid & Beatson (2015).

Material examined: 4 males and 8 females, Sri Lanka, Southern Province, Matara district, Kananke vill. environs, 04. 03. 2011, Kizub I.V. leg. et det.; 4 males and 8 females, Southern Andaman Isl., Wandoor, Wandoor vill. environs, 25. 02 - 10. 03. 2012, Kizub I.V. leg. et det. The studied material is deposited in the author`s private collection in Kiev, Ukraine.

Taxonomic notes: The genus *Altica* Geoffroy, 1762 has recently been revised for the Indomalayan Archipelago, the Western Pacific region and Australia by Reid & Beatson (2015), who reported 6 valid species: *A. aenea* (Olivier, 1808), *A. birmanensis* (Jacoby, 1896), *A. caerulea* (Olivier, 1791), *A. corrusca* (Erichson, 1842), *A. cyanea* Weber, 1801, and *A. grvida* (Blackburn, 1896). According to this review, *A. aenea* from South Asia and the central Pacific has, until recently, often been misidentified by different authors as various other species, including *A. corusca*, *A. grvida*, and *A. cyanea* (Reid & Beatson, 2015). Based on the external and internal morphology, *A. aenea* belongs to “*A. aenea*” species-group, which also includes *A. birmanensis*, *A. corrusca*, and *A. cyanea*. Specimens of Oriental *Altica*, including *A. aenea*, can best be reliably distinguished by careful examination of primarily male genitalia, as some females may be completely indistinguishable. The species *A. aenea* is characterized by the external face of the midtibia at the midpoint convex and the apical quarter of the first antennomere which is orange to reddish-brown or dark brown (Reid & Beatson, 2015). The penis long (1.65–2.15 mm), straight in lateral view, shallowly transversely ridged on the middle of the dorsal surface, with the apicoventer with a short pair of depressions and the apex abruptly bent in lateral view (Reid & Beatson, 2015 and Figs. 1B-D).

Geographical distribution: According to Reid & Beatson (2015) *A. aenea* is widely distributed in the Oriental and the Australian geographic Regions. However, so far *A. aenea* has not been reported neither from Sri Lanka nor the Andaman Islands (Reid & Beatson, 2015). 8 males and 16 females of *A. aenea* were collected in Sri Lanka and the Andaman Islands by the author. Based on the data reported by Reid & Beatson (2015) and the author`s records, an updated map of *A. aenea* distribution in the Oriental Region is presented in Fig. 4.

***Chaloenus (Chaloenus) apicicornis* (Jacoby, 1884A)** (Figs. 2A, B).
= *Delocephala apicicornis* Jacoby, 1884B

Material examined: 1 male, Malaysia, Sarawak, Bako National Park, 04 - 14. 03. 2014, Tkachenko I.B. leg., Kizub I.V. det. The studied material is deposited in the author`s private collection in Kiev, Ukraine.

Taxonomic notes: *Chalaenus* Westwood, 1861, is a genus that occurs only in the Oriental Region, and incorporates 44 known species (Takizawa, 2012; Nadein, 2013; Reid & Beatson, 2013). The genus is now placed by most of authors in the tribe Alticini Newman, 1835 (Kimoto, 2001; Medvedev, 2004; Takizawa, 2012; Nadein, 2013; Reid & Beatson, 2013). The majority of species are described from Borneo. The peculiar to this genus is that males of many species in the nominate subgenus have heads transversely widened with the eyes protruding laterally (Fig. 2B). Recently a number of revisions of the genus have been published (Medvedev, 2004; Takizawa, 2011; Takizawa, 2012) and several new species have been described (Medvedev, 2004; Takizawa, 2012; Nadein, 2013). The genus *Chalaenus* used to be synonymised with the genus *Priostomus* Jacoby, 1884 (Konstantinov & Prathapan, 2008), but later *Chalaenus* was divided into two subgenera, the nominate one and the subgenus *Priostomus* (Takizawa, 2011, 2012).

Chalaenus apicicornis (Jacoby, 1884A) originally was described as a genus *Delocephala* Jacoby, 1884B and placed in the subfamily Galerucinae Latreille, 1802, but was later united with the genus *Chalaenus* (Wilcox, 1975). Also, *Ch. apicicornis* was later synonymized with *Ch. matangensis* Bryant, 1943 (Mohamedsaid, 2004), but the synonymy was not recognized by other researchers (Medvedev, 2004; Takizawa, 2012). According to Medvedev (2004) and Takizawa (2012), *Ch. apicicornis* can be easily distinguished from the rest of *Chalaenus* species by the following characteristics: elytra densely and confusedly punctated, upper side entirely metallic, legs and underside blackish blue to black, basal 6 antennal segments piceous, 5 apical antennal segments pale fulvous. In males, the head is broader than the prothorax. It is important to note, that *Ch. apicicornis* is a very poorly known species and its specimens have not been available for personal examination neither to Medvedev (2004) nor Takizawa (2012) who have revised the genus. In the present paper, I have an opportunity to illustrate the general appearance of the *Ch. apicicornis* male (Figs. 2A, B).

Geographical distribution: *Ch. apicicornis* is known only from Sumatra (Lebong, Indonesia) (Medvedev, 2004; Mohamedsaid, 2004; Takizawa, 2012), from where it was described, and Borneo (Sarawak, Malaysia) (Mohamedsaid, 2004; Takizawa, 2012). In the present study, I reported a new record of *Ch. apicicornis* from Sarawak (Bako National Park). The distributional map and the location of the new record site of *Ch. apicicornis* are given in Fig. 4.

***Mimastra jelineki* Bezděk, 2009** (Fig. 2C).

Material examined: 1 male and 1 female, Indonesia, Bali, Gerokgak Province, Pemuteran vill. environs, 26. 02. – 08. 03. 2015, Kizub I.V. leg. et det. The studied material is deposited in the author`s private collection in Kiev, Ukraine.

Taxonomic notes: The genus *Mimastra* Baly, 1865 currently comprises at least 65 described species and is widely spread in the Oriental Region (Mohamedsaid, 1992; Zhang et al., 2006; Bezděk, 2009, 2010, 2011, 2013; Bezděk & Lee, 2011). A number of publications report *Mimastra* from different geographical areas (Gressitt & Kimoto, 1963; Kimoto, 1989; Mohamedsaid, 1992; Zhang et al., 2006), and the genus has recently been completely revised by Bezděk in a series of publications (Bezděk, 2009, 2010, 2011, 2013; Bezděk & Lee, 2011). Following this revision, a new species, *Mimastra jelineki* Bezděk, 2009, has been described from Bali Island (Indonesia) (Bezděk, 2009; Bezděk & Lee, 2011). *M. jelineki* can be distinguished from other *Mimastra* species which have a longitudinal metallic stripe on the elytra (*M. limbata* Baly, 1879, *M. kremitovskyi* Bezděk, 2009, *M. maai* Gressitt & Kimoto, 1963, and *M. malvi* Chen, 1942) by a very narrow metallic green stripe extending from the humeral callus to before apex. All the other above-mentioned species have a much broader stripe which covers most of the elytral disc, with only elytral margins remaining pale (Bezděk, 2009).

Geographical distribution: So far, *M. jelineki* has only been reported from the eastern extremity of Java and from Bali, Indonesia (Bezděk, 2009). In this paper, I report a new record of *M. jelineki* in Bali, based on my collected material. One male and one female specimens were collected by me in Gerokgak Province of Bali Island (Fig. 4).

***Palpoxena shayakhmetovai* sp. nov.** (Fig. 3).

Material examined: Holotype 1 male, Peninsular Malaysia, Pahang, Fraser`s Hill, Silver Park Resort Hotel, h = 1300 m., 22. 03 - 01. 04. 2013, Azarov A. leg.,

Kizub I.V. det. The studied material is deposited in the author's private collection in Kiev, Ukraine.

Taxonomic notes: The genus *Palpoxena* Baly, 1861 is widely distributed in Southeast Asia, India and Africa and represented by approximately 54 species (Mohamedsaid, 1997). Malaysian species of *Palpoxena* have been reviewed by Mohamedsaid (1997) and in Malaysia the genus is represented by five species, including one described in the present paper: *P. jacobyi* (Baly, 1888), *P. laeta* Baly, 1861, *P. variabilis* (Jacoby, 1886), *P. sabahensis* Mohamedsaid, 1997 (Mohamedsaid, 1997, 2004), and *Palpoxena shayakhmetovai* sp. nov.

The representatives of the genus can be distinguished by maxillary palpi with a dilated third segment, as well as by expressed secondary sexual characteristics in males. In males of the genus *Palpoxena* the clypeus is strongly depressed or concave, the first segment of the protarsus with a pad on its ventral surface, and the apical sternite usually trilobed (Maulik, 1936; Mohamedsaid, 1997; Mohamedsaid & Furth, 2011). In contrast, the female clypeus is depressed, the first segment of the protarsus without a pad on its ventral surface, and the apical sternite entire (Mohamedsaid, 1997).

Description: Male (Fig. 3). Body reddish brown. Elytra bluish black with apical extremity reddish. Body length 8.0 mm.

Head together with eyes slightly broader than prothorax, vertex smooth, minutely shagreened and its surface covered with sparse and minute punctures, frontal tubercles elongated and flattened; vertex with rounded deep groove between frontal tubercles and two setiferous pores bearing long setae; clypeus broadly and deeply excavated, smooth and shining; labrum moderate, trapezoidal, glabrous, does not conceal sides of mandibles as seen from above; maxillary palpi with third segment greatly enlarged and swollen, cup-shaped, convex on underside and concave above; apical segment very small, conical, embedded slightly on one side near apex. Eyes moderately large, shortly-oval, convex; interocular space approximately 2 times as broad as the transverse diameter of each eye.

Antennal sockets moderately separated, with interantennal space 2 times as broad as the transverse diameter of each antennal socket. Antennae moderately slender, long, extended a slightly beyond the apex of elytra, entirely brownish; antennomere 1 club-shaped, slightly shorter than antennomere 3; antennomere 2 the shortest, as long as broad; antennomere 3 slightly longer than 1 and equal in length to 4; antennomeres 4-10 filiform, gradually shortened; antennomeres 3-6 covered with long hairs on the ventral surface; antennomere 11 leaf-shaped, flattened behind middle, and thickened and darkened toward apex.

Pronotum reddish brown, transverse, width 1.5 times greater than length, narrowed towards the base; sides straight and oblique from the base to apex; anterior border with no margins, lateral and posterior borders margined. Pronotal disc minutely shagreened, sparsely and minutely punctated, dull; transversely depressed slightly behind the middle, the depression being less prominent in the middle of the disc; anterior and posterior angles with seta-bearing pore.

Scutellum reddish brown, smooth, shagreened more coarsely than pronotum and elytra; its surface without punctures; triangular, with width greater than length, rounded at apex.

Elytra bluish black with the apical extremity reddish; broader at base than prothorax and broader at apex than at base, finely shagreened and densely punctated, dull; elytral punctures larger and deeper than those of pronotum; humerus convex, basal area on each side of scutellum slightly convex; elytra slightly widened behind middle and rounded at apical margins; transversely

depressed beyond middle and with postscutellar elevations; elytral epipleuron broad extended toward apex.

Ventral surfaces reddish brown, sparsely covered with pale hairs. Apical sternite conical, rounded at apex. Legs entirely brownish with protarsomer 1 dilated and with a pad on its ventral surface. Aedeagus is shown in Figs. 3C-E.

Diagnosis: The new species resembles *P. coerulipennis* (Baly, 1888) and *P. sabahensis* Mohamedsaid, 1997 by its coloration only: head, pronotum and ventral surfaces entirely reddish brown, and elytra bluish black, with the apical extremity reddish (Mohamedsaid, 1997). However, male *P. shayakhmetovai* do not have such prominent secondary sexual structures on the head as *P. coerulipennis* and *P. sabahensis* (Mohamedsaid, 1997). On the other hand, *P. shayakhmetovai* resembles *P. jacobyi* (Baly, 1888) males by large eyes, narrow interocular and interantennal space; broadly depressed clypeus, and maxillary palpi with the third segment broadened and swollen. Also, *P. shayakhmetovai* is similar to *P. violaceipennis* (Jacoby, 1896) described from Burma with the clypeus broadly depressed, the penultimate segments of the maxillary palpi profoundly convex and the apical bluntly conical (Maulik, 1936). It is important to note, that the male of the new species has entire abdominal apical sternite, not the modified trilobed sternite characteristic of males of the other *Palpoxena* species (Mohamedsaid, 1997). Based on external morphology, *P. shayakhmetovai* can be categorized into the "*P. laeta*" species-group (Dr. Jan Bezděk personal communication).

Derivatio nominis: The new species' name is dedicated to my friend and colleague Dr. Ganna M. Shayakhmetova.

Geographical distribution: *P. shayakhmetovai* is known from Fraser's Hill, Pahang, Peninsular Malaysia (Fig. 4).

ACKNOWLEDGEMENTS

The author thanks Ievgen B. Tkachenko (Kiev, Ukraine) for collecting the study material, Jan Bezděk (Mendel University, Brno, Czech Republic) and Mohamed S. Mohamedsaid (Subang Jaya, Selangor, Malaysia) for consultation, Maksym Leshchenko (Kiev, Ukraine) for taking the photographs, and Andrii Rozhok (The University of Colorado, Denver, USA) for editing of the paper draft.

LITERATURE CITED

- Baly, J. S. 1861. Descriptions of new genera and species of Phytophaga. Journal of Entomology, 1 (3): 193-206.
 Baly, J. S. 1865. Descriptions of new genera and species of Gallericidae. The Annals and Magazine of Natural History, (Series 3), 16: 247-255.
 Baly, J. S. 1879. Descriptions of new genera and species of Gallericidae. The Annals and Magazine of Natural History (Series 5), 4: 108-120.
 Baly, J. S. 1888. Descriptions of some genera and species of Gallericidae. The Journal of the Linnean Society of London (Zoology), 20: 156-188.
 Bezděk, J. 2009. Revisional study on the genus *Mimastra* (Coleoptera: Chrysomelidae: Galerucinae): Species with unmodified protarsomeres in male. Part 1. Acta Entomologica Musei Nationalis Pragae, 49: 819-840.
 Bezděk, J. 2010. Revisional study on the genus *Mimastra* (Coleoptera: Chrysomelidae, Galerucinae). Part 2. Annales Zoologici, 60: 35-46.
 Bezděk, J. 2011. Revisional study on the genus *Mimastra* (Coleoptera: Chrysomelidae: Galerucinae). Part 3: *Mimastra oblonga* and *M. tarsalis* species groups. Zootaxa, 2766: 30-56.
 Bezděk, J. 2013. Redescription of *Mimastra kumatai* (Kimoto & Takizawa, 1972), comb. nov. (Coleoptera: Chrysomelidae: Galerucinae). Genus, 24 (3-4): 315-323.
 Bezděk, J. & Lee, C.-F. 2011. Revisional Study on the Genus *Mimastra* (Coleoptera: Chrysomelidae: Galerucinae). Part 4. Annales Zoologici, 61 (4): 709-729.
 Biondi, M. & D'Alessandro, P. 2012. Afrotropical flea beetle genera: a key to their identification, updated catalogue and biogeographical analysis (Coleoptera, Chrysomelidae, Galerucinae, Alticini). ZooKeys, 253: 1-158.
 Blackburn, T. 1896. Further notes on Australian Coleoptera, with descriptions of new genera and species. Transactions of the Royal Society of South Australia, 20: 35-109.
 Bryant, G. E. 1943. New species of *Chaloenus* (Halticinae, Col.) from Borneo, Siam and Perak. The annals and magazine of natural history (11), 10: 377-384.

- Chen, S. H.** 1942. Galerucinae nouveaux de la faune Chinoise. Notes d'Entomologie Chinoise, 9 (3): 9-67.
- Erichson, W. F.** 1842. Beitrag zur Fauna von Vandiemensland, mit besonderer Rücksicht auf die geographische Verbreitung der Insekten. Archiv für Naturgeschichte, 8 (1): 83-287.
- Geoffroy, E. L.** 1762. Histoire abrégée des insectes qui se trouve aux environs de Paris, dans laquelle ces animaux sont rangés suivant un ordre méthodique. Tome première. Durand, Paris, 523 pp.
- Gressitt, J. L. & Kimoto, S.** 1963. The Chrysomelidae (Coleopt.) of China and Korea. Part 2. Pacific Insects Monograph, 1B: 301-1026.
- Jacoby, M.** 1884A. *Priostomus* nov. gen. (Halticinae). Stettiner Entomologische Zeitschrift, 45: 185-186.
- Jacoby, M.** 1884B. Descriptions of new genera and species of phytophagous Coleoptera from Sumatra. Notes from Leyden museum, 6: 9-70.
- Jacoby, M.** 1886. Descriptions of new genera and species of phytophagous Coleoptera from the Indo-Malayan and Austra-Malayan subregions, contained in the Genoa Civic Museum. Third Part. Annali del museo civico di storia naturale di Genova, 24: 41-121.
- Jacoby, M.** 1896. Descriptions of the new genera and species of phytophagous Coleoptera obtained by Mr. Andrewes in India. Part II. Chrysomelinae [sic], Halticinae and Galerucinae. Annales de la Société Entomologique de Belgique, 40: 250-304.
- Kimoto, S.** 1989. Chrysomelidae (Coleoptera) of Thailand, Cambodia, Laos and Vietnam. IV. Galerucinae. Esakia, 27: 1-241.
- Kimoto, S.** 2001. Check-list of Chrysomelidae of South East Asia, south of Thailand and west of Irian-Jaya of Indonesia, IX. Alticinae. Bulletin of the Institute of Comparative Studies of International Cultures and Societies, 28: 153-249.
- Konstantinov, A., Chamorro, M. L., Prathapan, K. D., Ge, S.-Q. & Yang, X.-K.** 2013. Moss-inhabiting flea beetles (Coleoptera: Chrysomelidae: Galerucinae: Alticini) with description of a new genus from Cangshan, China. Journal of Natural History, 1-19.
- Konstantinov, A. S. & Prathapan, K. D.** 2008. New generic synonyms in the Oriental flea beetles (Coleoptera: Chrysomelidae). The Coleopterists Bulletin, 62: 381-418.
- Latreille, P. A.** 1802. Histoire naturelle, générale et particulière, des crustacés et des insectes. Ouvrage faisant suite à l'histoire naturelle générale et particulière, composée par Leclerc de Buffon, et rédigée par C. S. Sonnini, membre de plusieurs sociétés savantes. Tome troisième. Familles naturelles des genres, Paris: F. Dufart, xii + 13-467 pp.
- Maulik, S.** 1936. The Fauna of British India, including Ceylon and Burma. Coleoptera. Chrysomelidae (Galerucinae). London: Taylor & Francis, 648 pp.
- Medvedev, L. N.** 2004. A revision of the genus *Chaloenus* Westwood, 1861 (Coleoptera: Chrysomelidae: Alticinae) from Oriental region. Russian Entomological Journal, 13 (4): 245-252.
- Mohamedsaid, M. S.** 1992. The genus *Mimastra* Baly from Peninsular Malaysia (Coleoptera, Chrysomelidae, Galerucinae). Malayan Nature Journal, 46: 115-118.
- Mohamedsaid, M. S.** 1997. The Malaysian species of the genus *Palpoxena* Baly (Coleoptera: Chrysomelidae: Galerucinae). Serangga, 2: 53-64.
- Mohamedsaid, M.** 2004. Catalogue of the Malaysian Chrysomelidae (Ins.: Coleoptera). Pensoft, Sofia-Moscow, 239 pp.
- Mohamedsaid, M. S. & Furth, D. G.** 2011. Secondary sexual characteristics in the Galerucinae (sensu stricto) (Coleoptera: Chrysomelidae). International Scholarly Research Network Zoology, 2011: 1-60.
- Nadein, K. S.** 2013. A new species of the genus *Chaloenus* Westwood, 1861 from Java (Coleoptera: Chrysomelidae: Galerucinae: Alticini). Caucasian Entomological Bulletin, 9 (1): 114-115.
- Newman, E.** 1835. Attempted division of British insects into natural orders. The Entomological Magazine, 2: 379-431.
- Olivier, A. G.** 1791. Encyclopédie méthodique, ou par ordre de matières: par une société de gens de lettres, de savans et d'artistes; précédée d'un vocabulaire universel, servant de table pour tout l'ouvrage, ornée des portraits de Mm. Diderot et d'Alembert, premiers éditeurs de l'Encyclopédie. Histoire naturelle. Insectes. Tome sixième. Pars 1. Panckoucke, Paris, 704 pp.
- Olivier, A. G.** 1808. Entomologie, ou histoire naturelle des insectes, avec leur caractères génériques et spécifiques, leur description, leur synonymie, et leur figure enluminée. Coleoptères. Tome sixième. Desray, Paris, 613-1104.
- Reid, C. A. M. & Beatson, M.** 2013. Chrysomelid males with enlarged mandibles: three new species and a review of occurrence in the family (Coleoptera: Chrysomelidae). Zootaxa, 3619 (1): 79-100.
- Reid, C. A. M. & Beatson, M.** 2015. Disentangling a taxonomic nightmare: a revision of the Australian, Indomalayan and Pacific species of *Altica* Geoffroy, 1762 (Coleoptera: Chrysomelidae: Galerucinae). Zootaxa, 3918 (4): 503-551.
- Takizawa, H.** 2011. A revisional note on the genus *Chaloenus* Westwood (Coleoptera: Chrysomelidae). In: Haji Mohamed, et al. (Eds.), Lanjak Entimau Wildlife Sanctuary "Hidden Jewel of Sarawak", Proceedings of the Seminar on Lanjak Entimau Scientific Expedition 4-5 March 2009, Akademi Sains Malaysia, 347-356.
- Takizawa, H.** 2012. Descriptions of new species of the genus *Chaloenus* Westwood from Greater Sunda Islands (Coleoptera: Chrysomelidae: Alticinae). Genus, 23 (2): 269-330.
- Weber, F.** 1801. Observations entomologicae, continentes novorum quae condidit generum characteres, et nuper detectarum specierum descriptiones. Bibliopolii Academici Novi, Kiliae, 116 pp.
- Westwood, J. O.** 1861. Description and figures of a new genus and species of Gallerucidae. Journal of Entomology, 1 (4): 216-218.
- Wilcox, J. A.** 1975. Coleopterum Catalogus, supplementa Chrysomelidae: Galerucinae, pars 78, 770 pp.
- Zhang, L.-J., Yang, X.-K., Cui, J.-Z. & Li, W.-Z.** 2006. A key to the genus *Mimastra* Baly (Coleoptera: Chrysomelidae: Galerucinae) from China, with the description of a new species. Entomological News, 117: 203-210.

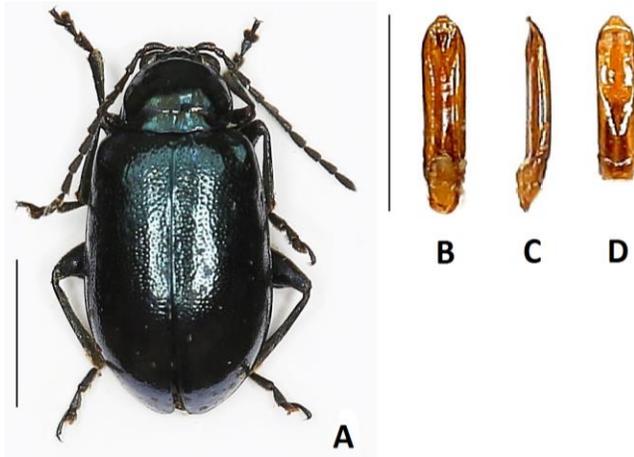


Figure 1. *Altica aenea* (Olivier, 1808), male: A) habitus; B) aedeagus, dorsal view; C) aedeagus, lateral view; D) aedeagus, ventral view. Scale bars = 2 mm.

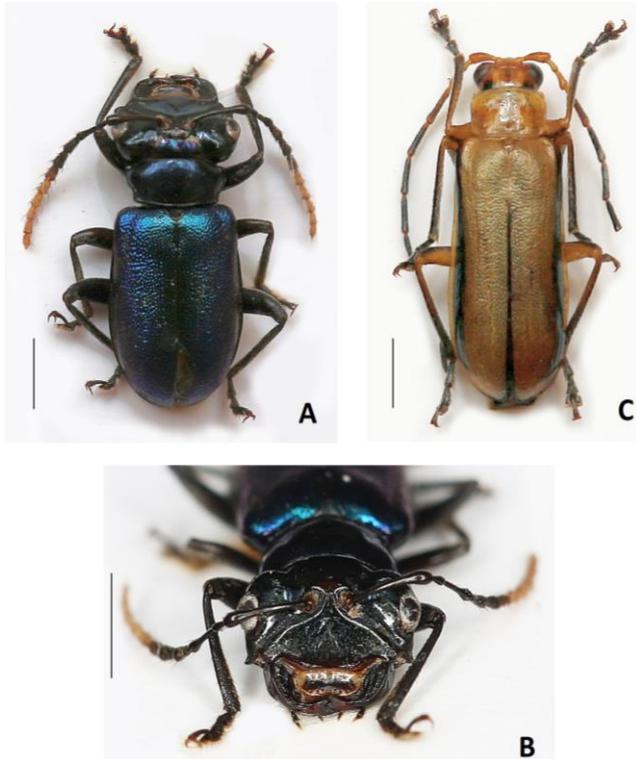


Figure 2. Habitus: A, B) *Chaloenus apicicornis* (Jacoby, 1884A), male; C) *Mimastra jelineki* Bezděk, 2009, male. Scale bars = 2 mm.

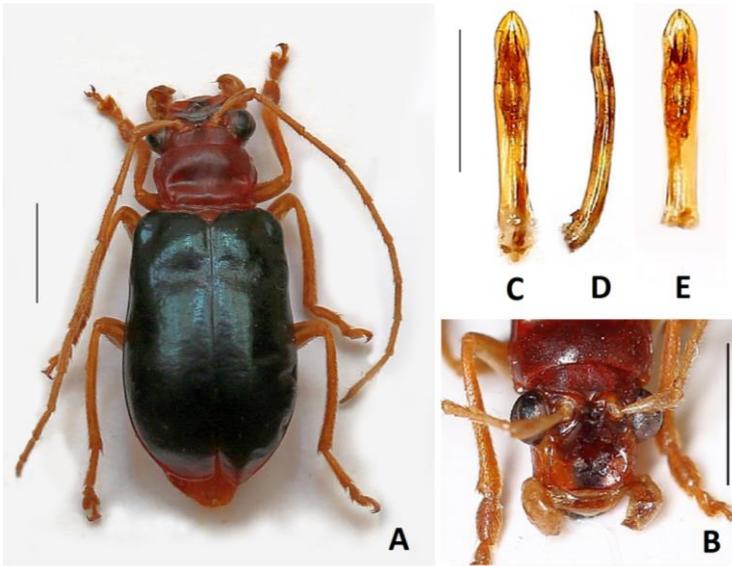


Figure 3. *Palpoxena shayakhmetovai* sp. nov, male holotype: A) habitus, dorsal view; B) head, dorsal view; C) aedeagus, dorsal view; D) aedeagus, lateral view; E) aedeagus, ventral view. Scale bars = 2 mm.

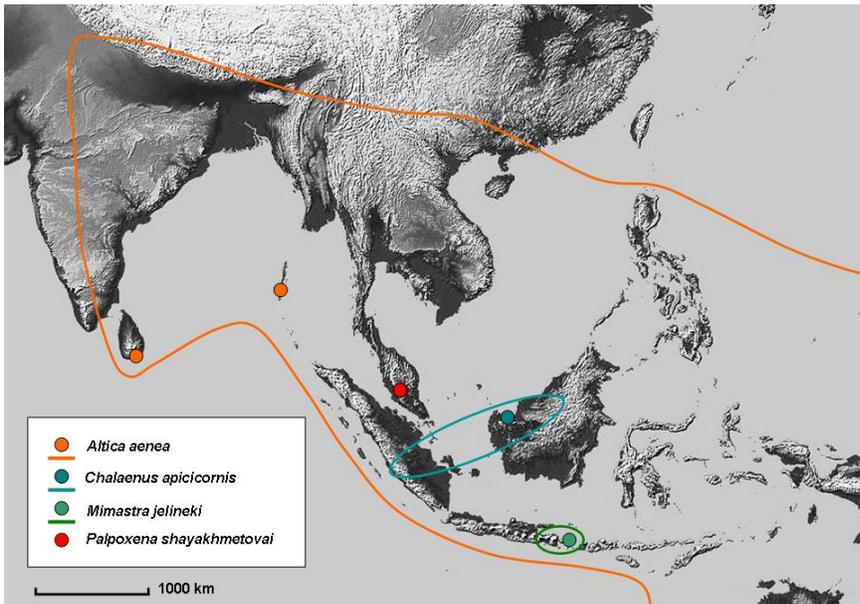


Figure 4. Distributional map of *Altica aenea* (Olivier, 1808), *Chaloenus apicicornis* (Jacoby, 1884A), *Mimastra jelineki* Bezdek, 2009, and *Palpoxena shayakhmetovai* sp. nov. Colored circles – newly recorded localities of the species; colored lines – known borders of the species distribution.